

SAFETY DATA SHEET

Revision Date 28-May-2015

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name Window Markers, various colors

Other means of identification

Forney SKUs 70853, 70854, 70855, 70856, 70857, 70858, 70859

Recommended use of the chemical and restrictions on use

Recommended Use Solvent based marker

Uses advised against Keep away from children. Not for use on skin.

Supplier's details

Supplier Address

Forney Industries, Inc.
2057 Vermont Dr.
Fort Collins, CO 80525

Phone: 1-800-521-6038

Email: customerservice@forneyind.com

Emergency phone number

Emergency Phone Number

Emergency Response Phone: 1-800-535-5053

International Emergency Response Phone: 352-323-3500

2. HAZARDS IDENTIFICATION

Classification

This product is an article as defined by the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200). No exposure to hazardous chemicals is expected to occur during intended product use. Misuse of the product may result in exposure to hazardous chemicals. The classification below applies to the liquid ink in this marker.

This product is not a toxic or hazardous substance as defined by 16 CFR 1500.3 of the Federal Hazardous Substances Act (FHSA) and as such does not require acute or chronic hazard labeling. Reviews were conducted using guidelines set forth by the CPSC (Consumer Product Safety Commission).

GHS Label elements, including precautionary statements

Emergency Overview

Keep away from children.
The product contains no substances which at their given concentration are considered to be hazardous to health

Appearance Varies

Physical State Liquid.

Odor Alcohol

Precautionary Statements**Prevention**

- None

General Advice

- None

Storage

- None

Disposal

- None

Hazard Not Otherwise Classified (HNOC)

Not applicable.

Other information

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS
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Chemical Name	CAS-No	Weight %	Trade secret
Propanol	71-23-8	55-60	*
Diacetone alcohol	123-42-2	15-20	*
Titanium dioxide	13463-67-7	0-5	*
Cobalt	7440-48-4	0-5	*

**The exact percentage (concentration) of composition has been withheld as a trade secret.*

4. FIRST AID MEASURES

Description of necessary first-aid measures**General Advice**

Under normal conditions of use first aid is not required.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or Poison Control Center immediately.

Skin Contact

Wash skin with soap and water. Get medical attention if irritation develops and persists.

Inhalation

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects None known

Indication of immediate medical attention and special treatment needed, if necessary**Notes to Physician**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

None.

Specific Hazards Arising from the Chemical

The ink contained in this product is flammable but not readily ignited.

Explosion Data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions Remove all sources of ignition.

Environmental Precautions

Environmental Precautions Avoid release to the environment. Dispose of contents/container to an approved waste disposal plant. See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for Containment None required.

Methods for Cleaning Up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE**Precautions for safe handling**

Handling Keep away from open flames, hot surfaces and sources of ignition.

Conditions for safe storage, including any incompatibilities

Storage Store in a well-ventilated place. Keep cool.

Incompatible Products None known based on information supplied.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Control parameters**

Exposure Guidelines The following exposure limits are provided for information only; exposure is not expected under normal conditions of use or storage.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Propanol 71-23-8	TWA: 100 ppm	TWA: 200 ppm TWA: 500 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 500 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 625 mg/m ³	IDLH: 800 ppm TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 625 mg/m ³
Diacetone alcohol 123-42-2	TWA: 50 ppm	TWA: 50 ppm TWA: 240 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 240 mg/m ³	IDLH: 1800 ppm TWA: 50 ppm TWA: 240 mg/m ³
Cobalt 7440-48-4	TWA: 0.02 mg/m ³	TWA: 0.1 mg/m ³ dust and fume (vacated) TWA: 0.05 mg/m ³ dust and fume	IDLH: 20 mg/m ³ dust and fume TWA: 0.05 mg/m ³ dust and fume
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust	IDLH: 5000 mg/m ³

Ci 77400 7440-50-8	TWA: 0.2 mg/m ³ fume	TWA: 0.1 mg/m ³ fume TWA: 1 mg/m ³ dust and mist (vacated) TWA: 0.1 mg/m ³ Cu dust, fume, mist	IDLH: 100 mg/m ³ dust, fume and mist TWA: 1 mg/m ³ dust and mist TWA: 0.1 mg/m ³ fume
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ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures None under normal use conditions.

Individual protection measures, such as personal protective equipment

Eye/Face Protection No protective equipment is needed under normal use conditions.
Skin and Body Protection No protective equipment is needed under normal use conditions.
Respiratory Protection No protective equipment is needed under normal use conditions.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid.	Appearance	Varies.
Odor	Alcohol.	Odor Threshold	No information available.

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	No data available	None known
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	96 °C / 205 °F	None known
Flash Point	23 °C / 73 °F	(Liquid Ink only)
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
upper flammability limit	13.5%	
lower flammability limit	2.1%	
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Specific Gravity	.9418	None known
Water Solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	No data available	None known

Flammable Properties Highly flammable.

Explosive Properties No data available
Oxidizing Properties No data available

Other information

VOC Content (%) No data available

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

None known based on information supplied.

Incompatible materials

None known based on information supplied.

Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known or supplied information.
Inhalation	None under normal use conditions
Eye Contact	None under normal use conditions.
Skin Contact	None under normal use conditions.
Ingestion	None under normal use conditions.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Propanol	= 1870 mg/kg (Rat)	= 4049 mg/kg (Rabbit)	> 13548 ppm (Rat) 4 h
Diacetone alcohol	= 4 g/kg (Rat)	= 13500 mg/kg (Rabbit)	-
Titanium dioxide	> 10000 mg/kg (Rat)	-	> 6820 mg/m ³
Cobalt	= 6170 mg/kg (Rat)	-	> 10 mg/L (Rat) 1 h

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms None under normal use.

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenicity	This product contains titanium dioxide which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is a liquid.

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium dioxide		Group 2B		X
Cobalt	A3	Group 2B	Reasonably Anticipated	X

ACGIH: (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration Hazard	No information available.

Numerical measures of toxicity - Product

The following values are calculated based on chapter 3.1 of the GHS document: Not applicable

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not Applicable

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Propanol 71-23-8		LC50 96 h: = 4480 mg/L flow-through (Pimephales promelas)	EC50 = 17700 mg/L 5 min EC50 = 45000 mg/L 5 h EC50 = 8686 mg/L 15 min EC50 = 980 mg/L 12 h	EC50 48 h: = 3642 mg/L (Daphnia magna) EC50 48 h: 3339 - 3977 mg/L Static (Daphnia magna)
Diacetone alcohol 123-42-2		LC50 96 h: = 420 mg/L static (Lepomis macrochirus) LC50 96 h: = 420 mg/L (Lepomis macrochirus)		EC50 24 h: = 8750 mg/L (Daphnia magna)
Cobalt 7440-48-4	-	LC50 96 h: > 100 mg/L static (Brachydanio rerio)	-	-

Persistence and Degradability No information available.

Bioaccumulation No information available.

Chemical Name	Log Pow
Propanol	0.34
Diacetone alcohol	1.03

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with local regulations.

Contaminated Packaging Not Applicable

14. TRANSPORT INFORMATION

DOT

UN-Number	UN1210
Proper shipping name	Printing ink
Hazard Class	3
Packing Group	III
Description	UN1210, Printing ink, 3, III, Limited Quantity
Emergency Response Guide Number	129

TDG

UN-Number	UN1210
Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	III
Description	UN1210, Printing ink, 3, III, Limited Quantity

MEX

UN-Number	UN1210
Proper Shipping Name	Printing ink

Hazard Class	3
Packing Group	III
Description	UN1210, Printing ink, 3, III, Limited Quantity

ICAO

UN-Number	UN1210
Proper shipping name	Printing ink
Hazard Class	3
Packing Group	III
Description	UN1210, Printing ink, 3, III, Limited Quantity

IATA

UN-Number	UN1210
Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	III
ERG Code	3L
Description	UN1210, Printing ink, 3, III, Limited Quantity

IMDG/IMO

UN-Number	UN1210
Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	III
EmS No.	F-E, S-D
Description	UN1210, Printing ink, 3, III, (23°C c.c.), Limited Quantity

RID

UN-Number	UN1210
Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	III
Classification Code	F1
Description	UN1210, Printing ink, 3, III, Limited Quantity

ADR

UN-Number	UN1210
Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	III
Classification Code	F1
Tunnel Restriction Code	(D/E)
Description	UN1210, Printing ink, 3, III, (D/E), Limited Quantity

ADN

Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	III
Classification Code	F1
Special Provisions	163, 640E
Description	UN1210, Printing ink, 3, III, Limited Quantity
Limited Quantity	5 L
Ventilation	VE01

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Cobalt	7440-48-4	0-5	0.1

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

U.S. State Regulations

California Proposition 65

The classification listed below only applies to respirable Titanium dioxide. This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Cobalt	7440-48-4	Carcinogen
Titanium dioxide	13463-67-7	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Propanol	X	X	X		X
Diacetone alcohol	X	X	X		X
Titanium dioxide	X	X	X	-	X
Cobalt	X	X	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazard 0	Flammability 2	Instability 0	Physical and Chemical Hazards -
<u>HMIS</u>	Health Hazard 0	Flammability 2	Physical Hazard 0	Personal Protection X

Revision Date 28-May-2015
Revision Note No information available.

General Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet.